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REMARKS

The Final Office Action dated June 3, 2004 has been received and considered by the Applicants. Claims 1-3 and 6-17 are pending in the present application for invention. Claims 10, 5-7, 14, 15 and 17 are rejected by the Final Office Action dated June 3, 2004. Claims 8-13 are allowed by the Final Office Action dated June 3, 2004.

Claims 1, 2, 5 and 6 are rejected under the provision so of 35 §U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,480,454 issued in the name of Wada et al. (hereinafter referred to as Wada et al.). The Examiner states that Wada et al. disclose the subject matter defined by the rejected claims. The Applicants, respectfully, disagree. Wada et al. do not disclose, or suggest, integrating the series arrangement of resistors in to the electrodes. The Applicants, respectfully, submit that the Examiner is reading the subject matter defined by the rejected claims into the disclosure of Wada et al. The Examiner cites Figures 1-3 of Wada et al. as support for the assertion that the limitations defined by the rejected claims are disclosed by Wada et al. Applicants, respectfully, submit that the Examiner has mischaracterized Figures 1-3 of Wada et al. Fig. 3 of Wada et al. illustrates electrodes A, B, C, D, and E to the left of the figure, and resistances, r1, r2, r3, and r4 are shown to the right of the Fig. 3, which is not a disclosure of the resistors being integrated within the electrodes. The description related to Fig. 3 of Wada et al. on column 9, beginning on line 46 and proceeding through column 10, line 22 describes the electrode portion 13a and the voltage control portion 13b without and mention or suggestion for integrating the voltage control portion 13b within the electrode portion 13a. In fact Fig. 1 of Wada et al. shows the voltage control portion 13b that defines the resistors r1, r2, r3, r4 clearly outside the stack that forms optical element 10; which again is not a disclosure, or suggestion, for the resistors r1, r2, r3, r4 being integrated with the electrode. Any person skilled in the art would understand that electrode portion 13a is situated within the stack shown in the Figures 1-3 of Wada et al. that opposes electrode 14 and that the resistors r1, r2, r3, r4 are clearly outside the stack. The Applicant do not agree with the assertions contained in the Final Office Action that Wada et al. disclose, teach or otherwise motivate a person skilled in the art to integrate the resistors within the electrode portion 13a. The rejected claims clearly define subject matter for the resistors to be integrated in the electrodes. Wada et al. does not disclose or suggest that the

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resistors are integrated within the electrodes. Accordingly, this rejection is respectfully traversed.

Claim 14 is rejected under the provision so of 35 §U.S.C. 102(b) as being anticipated by EP 0 745 980 (hereinafter referred to as Ohsato). The Examiner's position is that Ohsato discloses the subject matter defined by rejected Claim 14 for at least one of the electrode layers having a center of symmetry that is displaced from a center of symmetry of the modifier as a whole. The rationale expressed by the Examiner is that the centers of symmetry for the electrode layers taught by Ohsato are in the optical center of the radiation beam but in the plane of the respective electrode layers, therefore, the centers of symmetry of the electrode layers are displaced in the direction of the optical axis from the center of symmetry of the modifier as a whole. The Applicants, respectfully, point out that for the modifier to have a center of symmetry, the parts of the modifier surrounding the center of symmetry must be symmetrical. The Examiner has, apparently, chosen as the center of symmetry the center of the modifier shown in Fig. 3. The Examiner states that the centers of symmetry for the electrode layers are displaced along the optical axis from that which the Examiner states is the center of symmetry as a whole. However, the Applicants, respectfully, point out that there is a basic flaw within this line of reasoning. This flaw being that the point that the Examiner refers to is not the center of symmetry for the modifier taught by Ohsato for the simple reason that the modifier is not symmetrical about that point. Using the terminology employed by the Examiner in the Final Office Action, first electrode layer (elements 120B1-120B3) and the second electrode layer 120B are different; therefore, the center of the modifier shown in Fig 3 is not a center of symmetry. Fig. 3 of Ohsato clearly shows first and second electrode layers that are different, therefore any point in between these electrode layers can not, by definition, be the center of symmetry. The center of symmetry must be viewed from the center of each layer in order for the portions surrounding the center to be symmetrical. Accordingly, there are unground elements defined by rejected Claim 14 that are not taught, or suggested, by Ohsato. Therefore, this rejection is respectfully traversed.

Claims 15 is rejected under the provision so of 35 §U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,625,102 issued in the name of Hashimoto (hereinafter referred to as Hashimoto). The Examiner states that Hashimoto discloses the elements of the rejected claims

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including the electrodes being arranged around a center of symmetry and the width of the electrodes decreasing with increasing distance for the center distance from the center. The Applicants, respectfully point out that Fig. 17 of Hashimoto illustrates electrodes arranged in a concentric manner, however, there is no disclosure or suggestion that these electrodes are arranged around the center of symmetry of the modifier shown therein. Accordingly, this rejection is respectfully traversed.

Claim 17 is rejected under the provision so of 35 §U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,495,461 issued in the name of Komma et al. (hereinafter referred to as Komma et al.). The Examiner's position is that Fig. 4 of Komma et al. discloses that a difference between a maximum value taken by the aberration function in the area occupied by an electrode and a minimum value taken by the aberration function in the area occupied by that electrode is substantially equal for all electrodes of the wavefront modifier. The Applicants, respectfully disagree. Fig. 4 of Komma et al. discloses experimental results of diffraction efficiencies measured by supplying a linearly polarized laser beam into a manufactured liquid crystal hologram having an AC voltage applied. There is no discussion within Komma et al. related to maximum and minimum values of aberration functions, nor is there any mention of aberration function in the areas occupied by the electrodes. Moreover, there is no disclosure, suggestion or any mention whatsoever that would provide a motivation for a person skilled in the art to create a modifier with electrodes wherein a difference between a maximum value taken by the aberration function in the area occupied by an electrode and a minimum value taken by the aberration function in the area occupied by that electrode is substantially equal for all electrodes of the wavefront modifier. Therefore, this rejection is, respectfully, traversed.

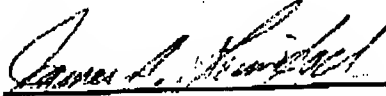
Claims 1, 3, 5 and 7 are rejected under the provisions so of 35 §U.S.C. 103(a) as being obvious over Ohsato in view of Wada et al. The Examiner states that Ohsato discloses all the elements of the rejected claims except for the series of resistors being electrically connected to the electrodes, wherein the series of resistors are integrated within the electrodes; which the Examiner states is disclosed by Wada et al. As previously stated in the response to the rejection of claims 1, 2, 5 and 6 under the provision so of 35 §U.S.C. 102(e), Figures 3 and 4 of Wada et

al. that the Examiner cites as support for the assertion that the limitations defined by the rejected claims are disclosed by Wada et al. has been mischaracterized. Wada et al. illustrates electrodes and resistances which is not tantamount to a disclosure of the resistors being integrated within the electrodes. The description related to Fig. 3 of Wada et al. on column 9, beginning on line 46 and proceeding through column 10, line 22 describes the electrode portion 13a and the voltage control portion 13b without and mention or suggestion for integrating the voltage control portion 13b within the electrode portion 13a. In fact Fig. 1 of Wada et al. shows the voltage control portion 13b that defines the resistors r1, r2, r3, r4 clearly outside the stack that forms optical element 10; which again is not a disclosure, or suggestion, for the resistors r1, r2, r3, r4 being integrated with the electrode. The Applicants do not agree that Wada et al. disclose, or suggest the integration of the resistors within the electrode portion as asserted by the Final Office Action. Accordingly, this rejection is respectfully, traversed.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicants believe that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By 

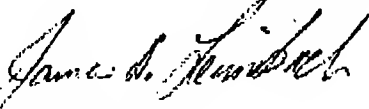
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